IN THE CLAIMS

Amendments to the Claims:

1. (Previously Presented) A memory matrix device for storing temporally sequential information in a manner that retains the sequence of information without dependence on multiple memory addresses, and is not a serial sequential access memory, a random access memory or a dynamic random access memory, comprising:

sequentially-connected arrays of fixed memory storage units;

means for applying the temporally sequential information to the arrays of fixed memory storage units; and

means for successively latching and disabling each successive fixed memory storage unit in a sequentially-connected array of said units, each array becoming enabled and then unenabled in temporal sequence, thereby directing the next temporal bit of information to the next memory storage unit in said sequentially-connected array, and

wherein, the input to the sequentially-connected array of fixed memory storage units is disabled upon completion of storage of a temporally sequential event to prevent overwriting.

2. (Previously Presented) A memory matrix device for storing temporally sequential information in a manner that retains the sequence of information without dependence on multiple memory addresses, and is not a serial sequential access memory, a random access memory or a dynamic random access memory, comprising:

sequentially-connected arrays of fixed memory storage units;

means for applying the temporally sequential information to the arrays of fixed memory storage units; and

means for successively latching and disabling each successive fixed memory storage unit in a sequentially-connected array of said units, each array becoming enabled and then unenabled in temporal sequence, thereby directing the next temporal bit of information to the next memory storage unit in said sequentially-connected array,

wherein the temporally sequential information is applied along parallel inputs to multiple parallel sequentially-connected-arrays of fixed memory storage units, such that fixed memory storage unit of a given sequential order of one said array will store information originating at the

same point in time, as information stored in a similar unit of the sequential order on a separate parallel array of said units.

3. (Previously Presented) The memory matrix device according to claim 1, wherein the array of fixed memory storage units includes semiconductor memory devices.

4. (Currently Amended) ~~The memory according to claim 3, wherein:~~

~~said means for applying includes an input bus or buses coupled to inputs of a first semiconductor device of a sequentially-connected array of said semiconductor devices;~~

A memory matrix device for storing temporally sequential information in a manner that retains the sequence of information without dependence on multiple memory addresses, and is not a serial sequential access memory, a random access memory or a dynamic random access memory, comprising:

sequentially-connected arrays of fixed memory storage units;

means for applying the temporally sequential information to the arrays of fixed memory storage units; and

means for successively latching and disabling each successive fixed memory storage unit in a sequentially-connected array of said units, each array becoming enabled and then unenabled in temporal sequence, thereby directing the next temporal bit of information to the next memory storage unit in said sequentially-connected array, and

wherein, the input to the sequentially-connected array of fixed memory storage units is disabled upon completion of storage of a temporally sequential event to prevent overwriting;

wherein the array of fixed memory storage units includes semiconductor memory devices and ~~wherein~~

means for successively latching each fixed memory storage unit of a sequentially-connected array as each fixed memory storage unit in turn becomes enabled and then unenabled, includes a pulse generator whose frequency is synchronized to the frequency of information inputted to the first semiconductor device, and which pulse generator simultaneously latches all fixed memory storage units of the same sequential order in all parallel sequentially-connected arrays, through connections that are functionally perpendicular to those of the sequentially-connected arrays.

5. (Withdrawn) The memory device according to claim 1, wherein the array of fixed interconnected memory storage units includes portions of a holographic recording medium.

6. (Withdrawn) The memory device according to claim 5, wherein:

said means for applying includes means for applying an information-containing holographic beam through separate holographic emitters or other means to multiple portions of the holographic recording medium; and

said means for successively activating includes a clock element or delaying device for rapidly moving or applying a reference beam from a first of the portions of the holographic recording medium to a second of the portions of the holographic recording medium, such that temporally sequential variations of the said holographic beam are recorded successively in portions.

7. (Previously Presented) A memory matrix device for storing temporally sequential information in a manner that retains the sequence of information without dependence on multiple memory addresses, and is not a serial sequential access memory, a random access memory or a dynamic random access memory, comprising:

sequentially-connected arrays of fixed memory storage units;

means for applying the temporally sequential information to the arrays of fixed memory storage units; and

means for successively latching and disabling each successive fixed memory storage unit in a sequentially-connected array of said units, each array becoming enabled and then unenabled in temporal sequence, thereby directing the next temporal bit of information to the next memory storage unit in said sequentially-connected array, and

further comprising:

using the fixed sequentially-connected arrays as a means for subsequently reading each of the fixed memory storage units in a sequentially-connected array, or in multiple parallel sequentially-connected arrays, in the same temporal sequence in which

each fixed memory storage unit was initially latched during storage, allowing retrieval of the temporal sequence of stored information without reliance on processing multiple memory addresses.

8. (Previously Presented) The memory matrix device according to claim 7, wherein the arrays of fixed memory storage units include semiconductor memory devices.

9. (Withdrawn) The memory device according to claim 7, wherein the array of fixed memory storage units includes portions of a holographic recording medium.

10. (Withdrawn) The memory device according to claim 1, wherein the array of fixed memory storage units includes magnetic media.

11. (Withdrawn) The memory device according to claim 7, wherein the array of fixed memory storage units including magnetic media.

12. (Previously Presented) A memory matrix device for retrieving temporally sequential information, without processing multiple memory addresses, comprising:

means for activating a pulse generator or other signal generator to read previously-stored information in sequentially-connected arrays of fixed memory storage units in the sequential order in which said fixed memory storage units are connected;

means for generating signals transmitted through vertical arrays connecting multiple parallel sequentially-connected arrays (horizontal arrays), to allow simultaneous signal application to temporally corresponding fixed memory storage units and consequent reading of information originating at the same point in time in different parallel horizontal arrays; and

means for successively reading the fixed memory storage units in the same sequence order in which they were latched during storage, to allow retrieval and temporal recreation of the corresponding stored temporally sequential information.

13. (Currently Amended) A method of storing temporally sequential information in an array of sequentially-connected fixed memory storage units, comprising the steps of:

applying the temporally sequential information to said sequentially-connected arrays of fixed memory storage units; and

successively storing bits of temporally sequential information in each of the fixed memory storage units in a sequence based on the order of connection of said fixed memory storage units,

wherein the arrays of fixed memory storage units includes semiconductor memory devices and

wherein:

the fixed memory storage units are connected in a permanent order such that whenever information is applied to the input and first fixed memory storage unit of a sequentially-connected array, the fixed memory storage units of said array are written to and latched in an invariant order; and

whenever [[the]] a signal generator activates reading at the first fixed memory storage unit of the array, reading of the entire array of fixed memory storage units occurs in the same invariant order.

14. (Cancelled).

15. (Original) The method according to claim 13, wherein the step of applying includes the step of applying the temporally sequential information to the arrays of fixed memory storage units in parallel lines or waves.

16-17. (Cancelled).

18. (Withdrawn) The method according to claim 13, wherein the array of fixed memory storage units includes portions of a holographic recording medium.

19. (Withdrawn) The method according to claim 13, wherein:

the step of applying the temporally sequential information to the array of fixed memory storage units includes the step of-applying a temporally varying holographic beam to the multiple portions of the holographic recording medium; and

the step of successively activating each of the fixed memory storage units or arrays of said units in sequence includes the step of moving or applying a reference beam to a first of the

portions of the holographic recording medium and then to a second of the portions of the holographic recording medium.